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MODERN CRITICISM.

It is many years ago since Walter Savage Landor, stung by some critical gadfly who had written depreciatingly of the *Imaginary Conversations*, defied his censor to produce anything upon the same subject half as good, and wagered upon the event—a pot of porter; but ever since that period, our authors seem to have been growing more and more impatient of Criticism. We have ourselves received at least half-a-dozen pamphlets within the last twelve months of protest, remonstrance, or downright angry vituperation from the *genus irritabile*, galvanised into print by the shock their system has received from the batteries of the Reviews. Poet Close (who is really great fun, except where he intends to be humorous) published quite a little volume upon the wrongs inflicted upon him in this way, and accused, if we remember right, the whole London press of a conspiracy to extinguish his genius, which, it seems, is fanned by the provincial journals. But it is not only poets or men of the Close calibre who murmur. Novelists, Essayists, nay, even Compilers are hastening to proclaim what they suffer from the malice of anonymous enemies, who happen to be ‘connected’ with some critical organ, or from the carelessness of those whom even the Laureate has stigmatised as ‘indolent reviewers.’ And, indeed, although of course wounded vanity underlies many of these Remonstrances, they are not all published without cause. In the case of a recent compiler, for instance, *versus* one of the most largely-circulated of our literary papers, it would seem almost certain that the reviewer did not even qualify himself for his task by that simple operation of ‘smelling the paper-knife;’ or if he did that, he smelt it without cutting the leaves. So numerous, in fact, were his misrepresentations, that another journal in the same line of business—not sorry, perhaps, to find its rival tripping—actually endorsed the author’s complaint, and proclaimed the wrongdoer a disgrace to criticism.

Without venturing to give an opinion upon that subject—for we are critics ourselves—we

think he ought to have done his duty more conscientiously; but the fact is, that what is called scamp-work in less ambitious trades, is a very common failing among reviewers. The responsibility of the position they are supposed to occupy as guardians of the public taste, does not affect them in any very great degree: nor is this to be wondered at, for their occupation as literary guide-posts is almost gone. There was a time when the *Edinburgh* and *Quarterly* were big with fate to the literary tribe; but, as a popular writer informed us this very June, ‘Who is the editor of either of these tremendous Reviews, is quite a secret now a days,’ while what they have to say about books is almost equally hidden from the generality of readers. People don’t want to be told any longer what to read, but choose for themselves. It is not now a matter of purchase, as it used to be; we have not to invest thirty-one shillings and sixpence upon a three-volume novel, before doing which one naturally requires some sort of guarantee of its being worth the money; but if the title takes us, or the author is a favourite one, we simply put it down in our list at Mudie’s without the expense of a penny. This is doubtless one great cause of the decay of the influence of reviews; another is owing to the inferiority of the critics themselves. When the Buff and the Blue had it all their own way, although their notices of books were often prejudiced and malicious, neither learning nor labour was wanting. The writers took great pains with their work, and were, at all events, so far conscientious. But reviews are now fired off upon all sides like squibs, and the object of the critics is neither justice nor enlightenment, but display of their own wit. A book is gutted of its best extracts, or its worst (according to the good-nature or malice of the reviewer), in order to make an amusing article. Some very feeble writers have been dragged out of their proper obscurity in order to be made a laughing-stock of, but we cannot remember one good book which has been revealed to the public for the last five years through the intervention of a critic. When the public have found one out, it is time enough, it seems, for the

critics to notice it. Just as though it were the business of the truffle-pigs to grunt applause, and that of the *bon vivants* to dig up the truffles. Want of sense of duty may be at the bottom of all this; but we can't buy sense of duty, any more than anything else that is good, at starvation prices. Reviewers, as a rule, are very ill-paid. Authors have multiplied, but the desire to read has fully kept pace with the increase; critics have multiplied, but the desire to read reviews is by no means a growing one with the public. Hence, the supply vastly exceeds the demand, and the labour of the critic is ill remunerated. The best literary talent (with rare exceptions) cannot be engaged, as in the last generation, for this calling, but only the second best (if so good), consisting for the most part of those who have failed in the more original walks of literature. The unsuccessful author sits in judgment upon the works of his sometime brethren who have not as yet given up the struggle to obtain an independent hearing; and his sentences, perhaps, are not more lenient upon that account.

There is even a class of journals, aspiring to be considered in some sort literary organs, the editors or proprietors of which are said to demand that slips suitable for insertion as 'extracts' in the desired notice should accompany the volume sent for review, in order that it may not be injured (that is, rendered unsaleable) by passing through the compositors' hands; and it is these copies, probably, which one finds at the second-hand booksellers' so immediately after publication, appropriately labelled 'good as new.' Of course, we are speaking in this case of very inferior critical periodicals; but even the better class, it is whispered, are not altogether uninfluenced by the marketable price of the volume thus gratuitously presented, and which becomes the perquisite of—Well, we can honestly lay our hand upon our heart, and solemnly asseverate *not* of the Critic. The plan adopted by the *Saturday Review* and others, of selecting their own subjects for notice, without reference to whether works are sent them by the publishers or not, is certainly the most dignified, as well as the least disappointing. For, in spite of the shortcomings of our own profession, and the abuse heaped upon it by the Reviewed, it is certain that even the most modest writers like to be 'noticed.' An author of our acquaintance, who is extremely bitter against those he calls 'the hebdomadal conferrers of immortality,' and who has been heard malignantly to remark, that the cowardly tyrant King John was the first to call himself We, admits this much, and confesses, that not to receive the attention of the press is to be placed in the same embarrassing position as hiding at *Hide and Seek*, with nobody coming to look for you.

The sensitiveness even of authors of assured position to what reviewers may choose to say of their productions, is very remarkable. We have seen one lose an excellent appetite through casting his eye, at the recommendation of an ill-natured friend, over a certain column in a newspaper, just before dinner. We have known a great fictionist have his ideas of human life quite steeped in gloom from the same simple cause. A third popular author—a poet—can never trust himself to read a review of his own works at all. Poets, however, although they have such a reputation for thin skins, are generally too sensible of their natural gifts to have their self-confidence shaken

by anything that is written of them. Happily, it would take forty *Quarterlies* to kill a Keats, although, doubtless, they might impair his digestion. The fact is, that, generally speaking, those writers only are impatient of criticism whom it is possible for criticism to harm. Modern critics have no power whatever (beyond wounding his *amour propre*) to do damage to a man whose popularity is even tolerably well established; nor, if all the reviews combined in one pean of praise, could they make a dull book popular. They can retard or they can accelerate the success of a deserving young author, and that is the extent of their power. A good book will certainly make its way independently of their coldness or their antagonism; and even when a book is not good, but which suits the public, it is vain for us reviewers to protest *en masse* against their general want of taste. All the literary organs of the metropolis have had their fling, and most of them half-a-dozen flings, against the poetry of Mr Tupper, and yet the *Proverbial Philosophy* of that gentleman bids fair to rival in circulation the Proverbs of Solomon. The books that are most puffed, on the other hand—generally those written by gentlemen 'connected with the press,' and who have a large acquaintance among the reviewers—are by no means those which have the largest acceptance.

A favourable notice in the *Times* is supposed to be equal in value—according to the publisher's scale—to that of the praise of all the other reviews put together; and yet what can it do? We remember to have been told by one of our most famous writers of fiction that a certain book of his, written when a young man, upon a subject not attractive to the general reader, was unexpectedly favoured in this way; and the total result was the sale of another hundred copies. He was of opinion that even now, when the machinery for getting books is so much more perfect, that eulogy from the same source would not sell a whole edition of a book of the same class, although, of course, it would vastly benefit a work which had in itself the elements of popularity. The simple fact is, that the circulation of all books now a days depends—we are far from saying upon their intrinsic merit, but—upon whether they are such as to please the Reader; if they please the Critic too, so much the better, but that is of comparatively little consequence to their success. In the case of Fiction, this is especially the case. If Mrs Brown likes the book (for she is of much more weight in this matter than Mr Brown), and if her opinion is coincided with by Mrs Jones and Mrs Robinson, those three ladies, sooner or later, put themselves in correspondence with Mr Mudie, and the business is done.

Since these things are so, why should authors now a days send good money after bad, by putting forth a second publication to complain of the treatment which their first has met with at the hands of the reviewers? Why this *Appeal to the Critics*? Why this *Justice to Authors*? Why this curious pamphlet *On Zoilism*, which in our ignorance we thought to be a new disease. On the contrary, it is, it seems, a very old complaint, that genius has not been appreciated, made by one who is 'only concerned to know what is Art and what is Truth.' Certainly one might have thought that an author clothed in such innocence would have been as respected as Lady Godiva. But the *Reader* and the *Pall Mall*

Gazette, and, in fact, half the London press, according to his own account, have treated him shamefully. What does it matter? If he have fallen among thieves, they can rob him of nothing really valuable—and, indeed, in the present case it seems doubtful whether there was anything to take. 'But even the Worm will turn.' We do not see the necessity, when the heel that is set upon it treads so lightly that it cannot crush a daisy; although, perhaps, it might do damage in the case of an artificial imitation of the flower.

A SWISS GUIDE'S STORY.

EARLY in the summer of 1864, when the most varied and contradictory rumours about the murder on Mont Pilatus were still rife in Switzerland, I happened to be at Grindelwald, and had occasion to engage a guide for the Strahleck Pass. But the difficulty was, that I wanted one guide, not two; whereas the regulations of the Führerverein, or Guides' Union, prescribed—ostensibly for the traveller's safety, but actually for the benefit of the guides' pockets—that two should be the minimum number for any of the more formidable peaks and passes. If the tourist requires a good deal of help and attention, this is all well enough; but if he can take care of himself, and can use his own ice-axe, if need be, an extra guide only reduces him to a state of miserable dependence, for which he is taxed exorbitantly. However, the rule was enforced stringently; and after vainly endeavouring to induce more than one of the Grindelwalders to infringe it, I was on the point of submitting, when a young man, who gave his name as Hans Becker,* stepped up and volunteered his services. He was not enrolled in the Verein, he said, and therefore was not bound by its rules; he had acted, first as porter, then as guide, for the last six years, and had crossed the Strahleck repeatedly—and these assertions he substantiated by a certificate-book, in which the names of several well-known English mountaineers appeared. As he seemed to be a stalwart, cheery young fellow, a bargain was at once struck, and arrangements made for a start at three o'clock on the following morning. As soon as Becker had gone to lay in a stock of necessities for the expedition, one of the Oberlanders, who had been hanging about during our conference, came up with an inquiry, whether I knew anything about the man whom I had just engaged. 'Yes; I had read his certificates, and was satisfied that he was a good mountaineer, who did not require another guide to take care of him, like certain other people.'

'If the Herr has two necks, and has no objection to spend a day or two with one of a family of murderers, he can certainly suit his own taste,' was the reply; and producing a copy of the *Lucerne Zeitung*, containing a report of proceedings before the Cantonal Tribunal of Justice against Ellermann, the supposed perpetrator of the Pilatus murder, he pointed out the name of Hans Becker, who was described as Ellermann's brother-in-law, and who figured as the principal witness in the case. However, as Becker's testimony appeared to have been entirely adverse to Ellermann, as it seemed unlikely that a propensity for homicide would be so infectious as to spread through the

collateral branches of a family, and as I never could discover any reason for Shakespeare's combination of those words, 'traitor and mountaineer' (the application of which to Imogen's brother cost poor Cloten his life), I rather surprised the Oberlander by telling him, with some pretty forcible figures of speech, which my student-days at Heidelberg had supplied, that I considered his attempt to supplant Becker a disreputable piece of sneaking, which decided me to have nothing to do with any of the fraternity. On this, he slunk away, more ashamed, probably, of the failure than of the meanness of his plan; and at about half-past two o'clock on the following morning, Becker's by no means truculent face appeared at my bedside, with an intimation that the weather was all that could be wished, and that we ought to start in half an hour. As to our day's mountaineering, the less said the better. A ten miles' burst with the hounds, and the ascent of the Strahleck ice-wall, five hundred feet high, and standing up at an angle of forty-eight degrees, are both exciting enough in practice; but the description of the hunt may remain as the speciality of *Bell's Life*, and the narrative of the 'hairbreadth 'scapes' be restricted to the publications of the Alpine Club, without inflicting any serious injury on that fastidious personage known as the General Reader. It is sufficient to say that the expedition was perfectly successful, and that Becker proved himself an accomplished mountaineer. One has a little delicacy about questioning a man on the subject of a crime which has been perpetrated by one of his near relations, and I was naturally unwilling to broach the subject of the Pilatus murder with Becker, although my curiosity had been excited by the current rumours of the romantic circumstances which attended it; but after a long conversation about the annual theatricals at Stalden, in which he had taken a prominent part in the preceding year, he became exceedingly communicative, and volunteered the following story, which I here report, as the newspapers report evidence, in a continuous form, instead of its original shape of question and answer. In other respects, I have rendered Becker's phraseology as faithfully as possible, without endeavouring to impart any literary polish to the narrative, which struck me as too strange not to be true. In all translation, one has a tendency to follow the example of the gentleman who expanded 'ceci fait' into, 'when these preliminaries had been adjusted,' and I may have sinned a little in this respect; but I have preferred writing down the story, while it is still fresh in my memory, here in this *salle à manger* of the Grimsel Hospice, to waiting until my impressions of it are feeble, and my leisure for attention to niceties of language, and the dramatic entities, greater.

'At the end of last summer,' he said, 'after completing an engagement with a family who intended to spend the winter in Rome, but were unable to keep me with them as their courier because I was ignorant of Italian, I went down to Brunnen, on the Lake of Uri, on my way to the great wood-carving manufactory at Aarau, where I had worked during the previous winter. There, whom should I meet but old Ziegler, who left his inn in our village some half-dozen years ago, and built the new hostelry on Mont Pilatus. It was about this that he had come to Brunnen, and as soon as he saw me, he inquired as to my plans. He wanted some one to take charge of his inn for the

* For obvious reasons, the names here given are fictitious.

winter, he said—some one who could do some painting and papering, which would make the house more popular with the English tourists, whom he found rather fastidious about such matters; and, in short, if I would undertake the job, he was willing to give me thirty-five francs a month, and to send up the necessary supplies of food once every five weeks or so from Lucerne. For this sum, I was to paint and paper the rooms, and, in addition, to make some carpentering alterations in the *salle à manger*. Now, I had earned just twice these wages, in the previous winter, at the Aarau manufactory, but then my working-hours were from eight in the morning to eight at night, so that I had no time to myself, while I knew that the work at the inn would leave me leisure to acquire sufficient knowledge of Italian to qualify me for the place of a courier; and, finally, after some deliberation, I accepted Herr Ziegler's offer; and in November I entered on my charge. The loneliness was terrible. Lucerne, the nearest town, could only be reached by a mountain-path, which the weather now and then rendered impassable for weeks together; and through the long winter evenings, the howls and shrieks which were echoed round the inn from the crags above, gave colour to the old wives' legends that tell how Pontius Pilate still haunts the border of the lake in which he threw himself in his last despair,* and so gave his name to the peak. Once a week, I relieved the dreariness by exchanging visits with an old man in charge of the inn on the other face of the mountain, so that I spent one Sunday with him at the *Golden Star*, and he the next with me at the *Eagle*. Of travellers, there were scarcely any. A few engineers, who were engaged in planning a railway, appeared from time to time; but the fare was seldom attractive enough to tempt them to stay longer than a single night. But one evening, as I was dozing over an Italian exercise, a stranger entered, who was evidently of a different class from any of the previous visitors.

He was tall, with a large beard, which gave him somewhat of a foreign appearance. When he spoke, his jerky, spasmodic sentences seemed to be familiar to me, though I fancied I had never seen him before, and could not identify his voice with that of any of my past or present acquaintance. As he chatted, I was surprised to recognise in his speech two or three expressions which I always thought were the special slang of our district; the more so as he said that he was a Bavarian, and had never been in Switzerland before. He was so incessant in his efforts to keep up a conversation, that when bedtime arrived, I found that the Italian exercise had scarcely progressed at all, and that my paper was only covered by my name, which I had mechanically scrawled over it in all directions. Two hours later, those scrawled names, I am now confident, saved my life. When the stranger rose to retire to rest, I shewed him his room, and immediately followed his example. In about five minutes, I heard his voice calling: "Waiter" (he had not inquired my name), and on going to his room, I found that his

watch had stopped, and that he wanted to know the time. As I went to the clock in my bedroom, he followed me there, and set his watch. A queer sort of fancy, I thought, that made him come along the passage to my room with his feet bare, instead of being satisfied with my telling him the time; but they would have to build a large wing to the Lucerne Museum to hold all the things that one can't account for, and it did not occur to me till afterwards to reflect upon the sharp glances which he cast on my bed and bedroom before he bade me a second "good-night," and returned to his own apartment. The *Eagle* was rather draughty, the night was very cold, and I was soon in bed and asleep.

It must have been in about an hour afterwards that I was aroused by a noise in the passage outside, as if some one was stumbling over the paint-pots, which I had left there. I lay still an instant, and listened. The steps approached nearer and nearer, until they stopped close to my door. My first impulse was to rise and ask if the guest required any assistance, but when he paused, my selfishness made me suppose (very absurdly) that he was trying to find out whether I was asleep or not, and did not intend to bring me down in the cold, unless I was already awake; so I breathed regularly and audibly, and shammed sleep. In a few moments, the door was pushed gently open. On the chest of drawers close by it was the little oil-lamp, which I always kept burning, in case of my lucifers failing, and which was covered with a green shade, which confined its light to a small part of the drawers, leaving my bed, at the other extremity of the room, completely in the dark. So, as the tall figure of the stranger stealthily glided into the doorway, some strange whim induced me to watch his movements, in the knowledge that I was entirely unseen by him. As he advanced towards the chest of drawers, looking cautiously in the direction of my bed, I was unable to see his hands at first; but when he came within the radius of the lamp-shade, I saw that what I then supposed to be the door-key was in his grasp. He moved the lamp a few inches, and paused, with his arm on the drawers, and his head supported by his hand. Suddenly his eye fell on my exercise-book, which was lying open underneath the lamp-shade. He started perceptibly, and drew the book close to the light. Then he cast an inquiring look towards the bed, then he looked again at the book, and then proceeded to remove the lamp-shade, the better, as I supposed, to be able to inspect myself. I became alarmed. Was it possible that he meditated robbery of the few valuables which remained in the inn, and that he was determined to satisfy himself of my unconsciousness? Or was he playing some trick upon me, intending to amuse himself with startling my nerves? It was childish to suppose so. On the impulse of the moment, I closed my eyes before the light reached them, and as I did so, I felt that my strange visitor was crossing the room, light in hand towards my bed. In spite of the coldness of the place, I found a clammy sweat creeping over me, as I knew from the red glare which a strong light shews through closed eyelids, that he was narrowly scrutinising my face. Suddenly and quietly he went back to the drawers, and as I ventured a stealthy glance, I could see him again peering earnestly at that open page, on which, as I knew, there was nothing

* This derivation of the name of Mont Pilatus, and the legends to which it naturally gave birth, are comparatively modern. It was originally 'Mons Pileatus' (i. e., the mountain with a cap), in allusion to the cowl of cloud which is seldom absent from the summit.—*Trench on Words*, p. 44.

inscribed except a few lines of an exceedingly childish Italian exercise, and the words "Hans Becker" in a dozen variations of signature. As he moved his arm, there was a sudden noise as of the fall of some light piece of iron, probably, I supposed, the key which I had seen in his hand. As he bent down to look for it, lamp in hand, a gust of wind came through the half-open door, and blew the light out. Then I could hear the sound of his hands groping over the floor in search for the key; but he searched in vain, as I gathered from the whispered curses which he now and then let off, as if the splinters of the rough boards were hurting his fingers.

Presently, he seemed to begin a systematic traversing of the whole room, and as I could distinguish his regular motion on hands and knees, my fears redoubled. Was the lost article a key, as I had fancied, or was it some more murderous implement? A knife? A dagger? Otherwise, why should he take so much trouble to recover it? Had I better cease my feigned sleep, and rush upon him there as he was on the floor, and demand at least an explanation of these strange antics? But I had no weapon; the darkness would take away the advantage which his crouching position would give; and, after all, if his purpose had been, for any unaccountable reason, to attack me, he seemed to have changed his mind. But if he regained the knife, what then? The search seemed endless. As he neared the window, and came into the light thrown by the moon, I could distinguish his gestures plainly. For more than half an hour, as I calculate, he crawled to and fro, till at last he ceased suddenly, and came towards my bed once more. There he paused an instant, as if to assure himself of my continued unconsciousness, and then, as noiselessly as ever, glided from the room. It was not until I had heard the door of his chamber closed that I sprang from my bed to erect a barricade against any attacks which he might contemplate. The only lucifer-matches in the house were in the *salle à manger*, and it was possible that he might have noticed them there, and might return, provided with a light, to accomplish his object, whatever that object might be. To lock the door, was easy enough, but then a slight push would be sufficient to force out the insecure hasp. With the chest of drawers, indeed, it was possible to secure the door effectually; but I feared that the noise which moving it would occasion would inevitably make the stranger aware that my slumbers had been feigned, and would cause him, even if he had abandoned his design, to take measures to dispose of the one witness to his proceedings. So I contented myself with placing the lamp (for there was no basin in the room) in such a manner on a chair by the door as to fall at the least pressure of the door from without, so that I might at least be forewarned of his approach if the drowsiness against which, even under such terrible excitement, I was obliged to struggle, should finally overcome me. Except my long clasp-knife, there was no weapon ready to my hand. With this I posted myself by the door, and there, while the intense cold seized every member in succession, I waited in deadly determination.

How long it was ere I ventured to betake myself once more to my bed, I cannot tell, but it must have been very near the morning. At last, I crept shivering between the warm blankets, and waited for the day. With the first streaks of light, I rose,

and the first object which met my gaze seemed to prove that my apprehension had not been groundless. It was a long double-edged knife, which stuck by its point in the projecting cornice of the wainscot. When the stranger's arm had knocked it off the drawers, it had struck against one of the wooden handles, had glanced thence into the deal wainscot, and so had not reached the floor. This, at least, is the only way in which I can account for its position; and I was in no little difficulty as to the best mode of returning it to its owner without leading him to believe that my suspicions had been aroused. But when I looked at the lamp again, and found that he had actually taken the trouble to replace the shade upon it, which he must have done after the light was extinguished, I felt tolerably confident that such a cool hand would manage the matter neatly; and I was not far wrong. When I descended into the *salle à manger* to prepare breakfast, I heard his footsteps along the passage in the direction of my room. Presently his voice inquired whether I had seen a knife, "which he must have left in my room when he came to set his watch." I answered, that I had found it on the floor; and so took it from my pocket, and gave it him. While he breakfasted, he asked repeatedly about my family. Was my father still alive? Had I any brothers? any sisters? I was naturally not disposed to be particularly communicative, but I had good reasons for keeping my visitor in good-humour. I told him that my sister had disappeared about eight years ago, having fallen in love with a dashing young *Wildschütz* (poacher), who was drawn in the conscription for service in the Landwehr, and immediately deserted, married Sophie, and emigrated, it was supposed, to America. "They must have suffered much misery," he said, "without money and without friends. Your sister could scarcely have lived through it. And you have no recollection of her husband?" I answered that I had only a hazy remembrance of the tall lover of Sophie's, who had taught me to set traps for the marmots on the Strekel Hills. "And you have not visited the Strekel Hills lately?" he observed; and I knew at once that he must, in spite of his disavowal, be intimately acquainted with the district. Those so-called "hills" were merely some mounds of earth among the rocks above our village. By a slip of the tongue, which I had not thought worth rectifying, I miscalled their name. He unwittingly corrected the error, and set my wits to work again to speculate as to his identity.

But though I am unable to account for my dulness of perception, it was not till he had taken his departure for, as he said, Lucerne, and was already some way *en route*, that I became convinced that it was my brother-in-law, always a *mauvais sujet*, who had nearly added murder to the wrongs which our family had suffered from him. We had naturally enough not recognised each other, for in the eight years since our last meeting, I had come to man's estate from boyhood, and he had changed from a smooth-faced young Swiss to a bearded foreigner. He had undoubtedly designed to dispose of me, to possess himself of the accumulated wages which (as he might have heard) my crotchety master insisted on sending up with my monthly supplies of food, and to take the few silver spoons and forks which were left in the inn. He discovered in the way I told you our relationship, and he hesitated to murder

one bearing the name of the wife who had perished in the backwoods of America.

'It was on Friday that he came to the inn, and he left it on the succeeding day. On Sunday, it was my turn to visit the old man in charge of the *Golden Star*; and as I walked over the crisp snow in the morning sun, ruminating over the occurrences of that terrible night, I felt more than ever in need of companionship. The loneliness crushed me. As I neared the house, eager to see old Johann, I looked at the chimney, and noticed with surprise that no smoke was rising from it. He had told me that he did not indulge himself with fires on every day of the week, and when I laughed at him for his economy, had said that I need not mind, for he would take care to greet me with a roaring fire on Sundays. Perhaps he had lost count of the days again, and I should be condemned to shiver over a frozen dinner. As I came up to the house, I perceived that the shutters of one of the windows of the *salon*, close to the little cupboard where he slept, were still as they had been put up on the previous evening to keep off the draughts; so that, when I entered the half-open door, one end of the room was in comparative darkness. I called Johann. There was no response. I went to the darkened end of the *salon*. I stood by the bedroom door, and called again with the same result. I tried to open it, and as I bent down to find the latch, my cap fell off. I picked it up, and as I did so, my fingers touched some clammy substance. A sickening fear came instinctively upon me. I tore down the shutters; and the gleams of the winter sun fell on a half-dried pool of blood, which had flowed in a narrow current beneath the chamber door. I was prepared for the sight which met my eyes when I lifted the latch. There lay the old man on his mattress on the floor, with his throat cut from ear to ear. It must have been done while he slept, for the body was lying in an easy position, though the horrible gash gaped widely as the head had fallen back over the edge of the mattress. I confess that for some moments I was thoroughly overcome; I could do nothing but stand and gaze at the corpse. But it was no time for inaction. That very morning the murderer must have quitted the house, unless, indeed, he was still on the spot. That, I feared, was the most likely case; and if we met, I knew that a struggle for life was unavoidable. Where was Johann's rifle? I looked for it in vain in the corner, where the old man used to point to it with pride as we ate a plump marmot or a toothsome chamois which had fallen before it. I searched everywhere; but it was gone, and so were the bullets which we had cast only a fortnight before. For this, probably, rather than for the contents of the bureau, which was broken open, the crime had been committed; and yet one would have thought that it would have been easy for the powerfully-made visitor to have taken possession of it by main force, without resorting to that last measure. As I searched the house for some weapon, I found no trace of life; and once convinced that Ellermann had departed, I knew that it was my duty to inform the officers of justice of the murder. I was on the point of starting for a six hours' walk to Lucerne, when a cloud that had been hanging round the top of the mountain rolled down its side, and enveloped the house in a thick mist, which obscured everything. Such mists are common enough, as all visitors to Switzerland know; but the idea that it might confine me to the inn

till nightfall, and oblige me to stay till the following morning in company with that dead body, was frightful. Yet if I started, and missed the track, I might come upon Ellermann. But anything was better than staying there, and I set out; and somehow contrived to reach Lucerne late in the afternoon. As I entered the town, and passed the balcony of the *Schweizer Hof*, which was filled with travellers, I saw that they all stared at me with an air of curiosity; but when I went to the *bureau de justice*, I became acquainted with the cause, for Mrs Head-police-officer, who was doing the business in her husband's absence, started backwards when I entered, and told me that I was "all over blood." In truth, my cap was well-nigh covered with crimson stains, which had been produced by its fall; and in the heat of my rapid walk, the colour had communicated itself to my forehead.

When the Herr Lieutenant came in, and I explained the circumstances to him, he seemed disposed to look with mistrust at me, until I told him my adventure of the previous night, and described the object of my suspicion. "Ah," he said, "everything is clear enough. Notice was sent from Bern to all the cantons, about a month ago, for the apprehension of one Ellermann, who was said to have first come from America, and who was recognised as a deserter from the late levy, as soon as he set foot in the Confederation. He was tracked from Bern to Constance, from Constance to Einsiedeln (where he robbed a pilgrim of two hundred francs, which the latter had brought to expend in masses), from Einsiedeln to Brunnen, and from Brunnen hither. He is supposed to have been guilty of a burglary which was committed a few nights ago at a shop in the Reuse-matt; and we imagined that he must have taken to the mountains as a last resource, and had sent notices to the police at Stanz and Alpach to be on the lookout for him."

On the following morning, I went up to the *Golden Star* with the gendarmes; and on the way, Ellermann's capture was effected easily enough, though the police made a great boast of it on the trial. It happened by pure accident. I led the way up a path which was a favourite haunt of the chamois, and consequently of the chamois-hunters. As we passed along, we came to a rifle standing by itself against a stone, and rounding a corner, we met its temporary owner, perfectly defenceless. He was taken to Lucerne; and his possession of what turned out to be Johann's rifle, even without my evidence, would have been sufficient to convict him. The rest you know about from the papers, as well as I do. He was sentenced to death; and was being conveyed to Mont Pilatus for the execution,* when he managed to break away from the gendarmes, in whose custody he was, and escaped unharmed by their bullets. From that time, all traces of him have disappeared; but it is supposed that he perished in a *crevasse*, or was frozen on the mountains—a miserable end, truly, but less ignominious than the punishment to which the law condemned him. But his crime is visited on our family everywhere; and at Grindelwald,

* In one or two of the cantons, it is the custom to execute murderers at the scene of their crime. In 1861, two men were guillotined in an out-of-the-way chalet high up on the mountains near Bern, for the murder of an old peasant, its owner; and a woman, their accomplice, was pardoned at the scaffold on the spot.

notwithstanding the part that I was forced to take against my brother-in-law, I had a bellyful of hard words. However, it will soon be forgotten, I hope, and then I shall be able to take to my guide's work again in good earnest.—Would you be so good as to write a recommendation in my certificate-book, sir ?

ANCHORS AND CHAIN-CABLES.

WE are not, it seems, to be allowed any longer to drown ourselves or each other with impunity. Defective anchors and chain-cables are known to be the cause of a large destruction of ships and of human life. A ship, riding at anchor during rough weather, is more at the mercy of her anchors and cables than of her captain's skill ; if they give way, there is at once peril of wreck, let the officers and crew do what they may. The legislature has, therefore, recently determined that a shipowner shall be prohibited from using, out of carelessness or niggardliness, anchors or cables which have not been subjected to test and examination ; and we are just now told how the arrangements are to work.

Every one, of course, knows what an anchor is ; but a chain-cable is not quite so well known. It is simply a substitute for a Brobdignagian hempen rope. In the old days of the *Bellerophon* and the *Saucy Arethusa*, of Nelson and pig-tails, of wooden ships and 'Britons never will be slaves,' a first-rate man-of-war used to carry ten or eleven hempen cables, some of which were as large as twenty-five inches in circumference, and weighing six tons per hundred fathoms. They were difficult to make, and when it happened (which it often did) that continental wars drove up the price of hemp to a high figure, these ropes were very costly affairs indeed. Shortly before the termination of the great war, Lieutenant Brown, realising an idea which had occurred to many persons, substituted an iron chain for a hempen rope, as a holding-line for an anchor. It answered well in two or three merchant-ships, and then the official mind took it up for the royal navy. The *Namur*, *Monmouth*, *Crescent*, and *Alonso*—formidable broadsiders of those days, though they would have doubtless fared queerly against our iron-clads and cupolas—were supplied with chain-cables. Three years after the battle of Waterloo, matters had so far advanced that every ship-of-war was ordered to have one at least of such cables. Gradually the number was increased, until, about the beginning of the Sailor-king's reign, all liners and frigates were to have four chain-cables each, sloops three, and corvettes two. The hempen cables in each ship lessened in number as the chain-cables increased. Ten years ago, when screw war-steamers began to make a noise in the world, they were ordered to have four chain-cables to two of hemp ; this was afterwards altered to five of chain, and one of hemp ; and at the present time, we believe, no ship-of-war carries more than one hempen cable. The maximum size of this one representative of the old school has been much reduced ; but still there are exceptional circumstances under which rope is rather more useful than chain. Even when iron is comparatively high in price, and hemp comparatively low, a chain-cable always costs less money than one of

hemp of equal strength, and occupies less than one-third as much space when stowed away on board. No wonder, then, that the cables of the old days, nearly as thick as a man's body, have gone out of favour.

At first, the chain-cables were ordinary chains of large size, with open links ; but now each link has mostly got a stay-pin across its shorter diameter, which greatly increases its strength. The cables, generally a hundred fathoms or six hundred feet in length, are made in eight pieces, twelve fathoms and a half long each, with shackles to join these shorter pieces, and swivels at certain intervals to facilitate the coiling. Every stay-pin of every link is stamped with the maker's name and the date of manufacture, that the proper praise or blame should fall on the right person whenever the merits of the cable come under notice. When a link breaks, it is more frequently due to bad workmanship than bad iron. The maker may charge ten pounds per ton, or may run on to between twenty and thirty pounds, mainly according to the quality of iron he uses : if best Low Moor, or Merthyr-Tydvil, he must pay highly for the iron, and charge highly for the chain. When the *Great Eastern* was built, it was determined that, so far as chain-cables were concerned, the best metal and the best workmanship should be used ; six or eight pounds higher per ton were paid than the Admiralty pay for the best war-cable. Poor ship, it deserved a better fate than has befallen it, for it unquestionably comprises many things that are triumphs of ingenuity in their way. The great landing-stage at Liverpool is held in its place by three or four hundred fathoms of chain-cable, so excellent in quality that the maker paid twelve pounds per ton for the bar iron which constitutes it. Let the reader who is not well up in the price of iron please to believe that this is a high price. The thickness of the bar or rod iron which is bent round to form a link varies from half an inch or less up to nearly three inches. For a two-and-a-quarter cable, as it is called, or one of which the links are made of iron two inches and a quarter thick, each link is about fourteen inches long by eight wide, with a stout stay-pin running across the centre. Recollecting the scientific maxim, that 'nothing is stronger than its weakest part,' the captain of a ship looks well after his chain-cables—or ought to do so ; seeing that one broken link is as bad as a dozen, so far as concerns the severance of a cable and the loss of an anchor. In ships-of-war, these matters are very stringently looked after. At intervals of six months, the captain causes his cables to be examined ; the shackle-bolts are driven out and rubbed over with tallow ; the stay-pins are driven out and rubbed over with stiff white-lead ; warm tallow is run into the sockets of the swivels ; the lengths of cable are interchanged, in order to equalise the tear and wear ; and every link is minutely examined. If anything is wrong, the wicked behaviour of the cable is at once put upon record, for transmission to the Admiralty. When a ship is 'paid off,' or put out of commission, the chain-cables are sent to Sheerness or some other of the dockyards ; they are rotated in a monster steam-worked drum, to rub off the rust, then tested link by link, then repaired in any defective links, and then painted black before being laid by in store.

What is called the testing of a chain-cable is a mighty stretching, such as none but the best links

can bear. There was a hydraulic testing-machine set up at Woolwich about thirty years ago; and others have been placed since in other dockyards. The strain to which the navy cables are subjected varies from four tons to ninety-one tons, according to the thickness of the iron which forms the links. Some of the machines are now so powerful that they could test to nearly twice the strain deemed necessary for any of the government cables. It is found that one-fourth of the cables ordered by the Admiralty prove defective under the test; which comprises the tension-strain of each section separately, and the minute examination of every link, stay-pin, shackle, swivel, and staple. The cable is not rejected, but the maker replaces the defective piece by another; or else it is done at the dockyard, and he is charged the cost. Down to the present time, chain-cables belonging to the royal navy have been in better repute than those in the merchant-service, owing to the more scrupulous testing. An underwriter, or ship-insurer, will grant better terms if a ship's cable have borne the Admiralty test, than if only the commercial test is applied. At Liverpool and elsewhere, testing-machines are kept, where commercial cables are tested, registered, and stamped for a certain fee, and a certificate given with each tested cable. But then there is, if not rascality, at least recklessness in some of the shipping people; for it is known that cables which have failed under the Liverpool test have been sold at a low price to such shipowners as do not scruple to risk life if they can save a little money by it. The superb chain-cables supplied to the *Great Eastern* by Messrs Brown and Lenox bore a test such as has never been used for any others; the stoutest of them were tested up to one hundred and forty-eight tons, and resisted a breaking strain up to one hundred and seventy-two tons: as much as twenty-four pounds per ton was paid for these cables.

As to the testing of anchors, the same kind of hydraulic power is applied as in the case of chain-cables; only its action is diagonal, to tear the arms away from the body or shank. When chain-cables began to supersede hemp, it was found that a change in the shape and construction of the anchor was desirable; and this led to what is now called the 'Admiralty anchor,' a product of many men's brains. In 1852 there was a grand tournament of anchors at Sheerness; in which the 'Ayley,' and the 'Honiball,' and the 'Isaac,' and the 'Lenox,' and the 'Mitcheson,' and the 'Rodgers,' and the 'Trotman' were pitted against the Admiralty anchor and against each other. How they did pull! and how the makers quarrelled with the Admiralty about the merits of the several anchors! The Admiralty used to make many or most of the navy anchors at the dockyards, where the anchor smithery was one of the 'lions'; but in recent years, it has been deemed expedient to contract for them; and now by far the larger proportion are made by the firm of Brown and Lenox—who are the 'Barclay and Perkins' of this particular trade. The anchors are paid for by weight; the larger the size, the greater price per hundredweight. About twenty years ago, the largest anchor, of ninety-five hundredweights, was charged seventy-three shillings per hundredweight, which, as a little calculation will shew, made a great hole in three hundred and fifty pounds; but the price has since been lowered. One of these monsters is seventeen feet long; an

infantile anchor of one hundredweight is about forty-four inches long. Six years ago, the country had nine hundred great anchors in store in the navy yards, besides those in the ships; and there is no reason to think that the number is any smaller now.

The legislature, as we have said, has taken up this matter. Various committees have ascertained beyond all question that many shipwrecks occur through defective anchors and cables; and parliament, after much discussion, passed an act, in 1864, to put the anchor-smiths and chain-smiths on their mettle. Under this new statute, any corporate or public body may establish and maintain buildings in which anchors and chain-cables can be tested by machinery. When such an establishment is in proper working-order, the Board of Trade will grant licences for carrying on the testing operations; but the Board hold the power to suspend or withdraw the licence, if the required conditions are not fulfilled. One of these conditions is, that the machinery and processes shall meet the approval of an official inspector, sent expressly to examine them. The inspector is to be appointed by and responsible to the Board of Trade. The licence is for one year only, and cannot be renewed until the works have been reinspected and again approved. A sum not exceeding fifty pounds is to be paid for each grant and each renewal of a licence; and the inspector's salary will be paid virtually out of the money thus collected. The corporate or public bodies which own the testing-works are to be called 'testers.' The testers are to test or prove all anchors and chain-cables sent to them for that purpose, belonging to the mercantile marine; and are to apply a test-proof equal to that enforced in the royal naval dockyards. Chain-cables, of which the iron of each link is two inches and three-quarters in diameter, are to be tested to the enormous limit of a hundred and thirty-six tons; these are the thickest and heaviest; the lightest are a little under half an inch in the diameter of the iron of the link, and are to be tested to three tons and a half; intermediate thicknesses are of course subjected to intermediate degrees of strain. The strain is not applied simply once to the whole cable of one hundred fathoms, but separately to each of its eight lengths of twelve and a half fathoms, or twenty-five yards each. For each size of cable, the length and width of the links, the weight of the stay-pin in each link, and the total weight of the cable, including its swivels and shackles, are exactly defined. Anchors are ranged in a series varying from one hundred hundredweights to one hundredweight; they are to be tested to a tensile strain varying from sixty-seven tons down to three tons and a half. If the tester finds that the chain-cable or the anchor bears the proper strain applied to it, he stamps upon it a mark which has already received the sanction of the Board of Trade; and this stamping is to be a certificate of good quality. The tester must not charge a higher fee than is laid down by the Board, but may go as much below it as he and his customers may agree. The anchor or chain-cable may be detained until the fee is paid. The owner may, if he wishes, obtain a written certificate as well as the stamp-mark.

Beginning with the month of July in the present year (1865), no chain-cable of any kind is to be sold for use in any ship until it has been tested and stamped by a licensed tester; nor any

anchor of greater weight than one hundred and sixty-eight pounds—which is quite an infantine anchor. If this stipulation is disregarded, the seller will be heavily fined; and if the stamp of a tester is fraudulently used upon an untested cable or anchor, the punishment will extend so far as imprisonment, even with hard labour. The stamping and the certificate only denote that the required tensile strain has been well borne; they are silent as to any other qualities which the cable or anchor may be required to possess, and in respect to which the seller and buyer may make whatever agreement they please.

The Board of Trade, then, has started for itself in this new line of trade. It appointed two inspectors soon after the act was passed, and these inspectors went to examine about forty hydraulic machines for testing anchors and chain-cables, at work in London, Liverpool, Birkenhead, Chester, Newcastle, Leeds, Hartlepool, and Sunderland; but especially in South Staffordshire, which is the head-quarters of the iron chain-trade, though not of the larger chain-cables or anchors. These were preliminary unofficial visits, for general observation and for collecting information. They found that the usual testing-machine in operation acts pretty uniformly in the following way. First, there is a strong cylinder of cast-iron, in which a piston moves water-tight, with very little friction. To the outer end of the piston-rod is attached one end of the chain-cable which is to be tested; while the other end of the chain is fixed temporarily to a massive standard. Then a hydraulic action commences, similar to that which works the hydraulic-press. Water is forced into the cylinder in such a way that unless it is actually condensed or compressed, something must yield; water *won't* condense if it can avoid it; and the arrangement is such that the piston moves a little, giving a little more room for the water. But when the piston moves, the piston-rod moves; and when the piston-rod moves, the chain-cable must move, and this it can only do by stretching. Every stretch or strain tries every link severely; and thus it happens that a little water in a cylinder may pull a chain-cable with a force of—ay—a quarter of a million of pounds. It is one of the many things in science hard to believe; yet it is fully believed by those whose opinions are best worth having. The process could be carried on till something or other *must* break; and therefore it is limited to the strength of the particular kind of cable under test. There are some little appendages in the forms of gauges and graduated levers to measure the amount of strain. The inspectors found the existing testing-machines to be curiously different in their results, and most of them bad. The chain-makers—sharp fellows at their own particular trade—knew precisely where the weak or ill-recording machines were located; and they were willing to sell a chain-cable at so many shillings per ton less, if they knew it would be tested by one of the inefficient machines, instead of by one that would honestly tell the truth.

The Board of Trade has just told all whom it may concern, what kind of testing-machine will be most likely to receive a licence; and it is also in a position to announce, that the larger and more important manufacturers of anchors and chain-cables welcome the new statute very gladly, because they think it will enable good

iron and good welding to take their proper station among other good things, by bearing a searching rough ordeal.

THE CLYFFARDS OF CLYFFE.

BY THE AUTHOR OF 'LOST SIR MASSINGBERD,' &c.

CHAPTER V.

THE HEIR AND THE HEIR-PRESUMPTIVE.

THERE is nothing more strange than that the aspect of external nature, as beautiful many thousand years ago as on this enchanted morning (which, so fresh and fair it is, might well be the first that ever broke on human vision), was cared for nothing at all till within the last three hundred years; that the common glories of sea and land, offered alike to lord and vassal, should have been by both rejected and ignored. To our far-back ancestors, a yellow primrose was a yellow primrose, and nothing more; and if any other flower ever awoke in them reflections too deep for tears, they have carefully concealed the circumstance. Doubtless there must have been persons born with some spiritual discernment of natural beauties; the scarred sea-rocks were not merely horrid to all; a forest must have been suggestive to some of other things beside the chase; a mountain-stream of more than a creel of fish. Nay, some mute inglorious Wordsworth, it is probable, existed in all those generations, which have left us scarcely one wood-note wild concerning the scenes which lay about them, as now about ourselves. Did they then love no birds but such as were good for table? Were their parks only fair because their venison grew therein? Some we know thanked God for the early Sunrise, that enabled them to start betimes upon a successful foray—thanked Him, that is, for luck in larceny (by no means 'petty')—but did men ever thank Him for the Sunrise itself, 'the awful Rose of Dawn'? Was it the premature birth of what is called 'the love of the Picturesque,' which caused them to lay out hideous gardens, trim and true as measuring-line could make them, and surround the same with box-trees, elaborately cut in travesty of the human form? Were all the priests who mumbled Latin and counted beads—thus worshipping, as one might say, through the medium of the classics and mathematics—spiritually deaf and blind, that they knew nothing of the truths which nature speaks direct from God himself? Or if they did know, how was it that they never told their people? Perhaps they had their reasons for silence upon this matter; perhaps there was an unauthorised sect, calling themselves Lovers of Nature,* whom it was expedient to put down, and a censorship of the press, which excised everything written about her, as William Cobbett would have eliminated from poetry all adjectives. But even the monks (who have been made answerable for so much, poor men, although they were useful too in their time) cannot be held responsible for this fact, that when our forefathers—a good many times removed—set their hands to build, their notion of what we call 'aspect' was peculiar; and if, in spite of them, the ground-floor sitting-rooms did happen to command a view, they generally saw

* Not by any means to be compared with those persons now termed 'Naturalists,' who, it has been said, would peep and botanise upon their mother's grave.

their error, and hastened to repair it, by raising a great wall immediately in front.

All allowance made for their pardonable solicitude to make our dwelling-houses defensible, when every man's hand (with a cross-bow in it) was against his brother, our architects of old, whether British, Danish, or Norman, were, it must be admitted, *Goths*. If they did build a house upon a hill, it was not for the prospect, but in order the better to annoy people who might want to ascend it; and when you find a peep-hole in a Norman tower, designed, as you might think, to afford a bird's-eye view of Paradise, you may be disabused of that idea by remarking a little furrow down the centre of the outlet, for the convenience of pouring melted pitch upon visitors. Clyffe Hall was no exception to other old houses in preparations for this sort of welcome, as likewise in its independence of all outward attractions. The ground-floor was shrouded in gloom. Either the windows were recesses, broad within, but narrowing in the thickness of the wall to the merest slits, or they were hidden by the terrace parapet. Moreover, where the panes were moderately large, many of them were of stained glass, and blushed with the blood of knights and dames of the House of Clyffe. The library, in particular, which should have been the best-lighted room of all, was the worst. It was beneath the level of the terrace, and entered from within by a descent; the sun even at noonday only made a sort of splendid gloom there. Its beams had to struggle through the painted shields of Sir John and Sir Gwinnet, of Sir Bevis and Sir Mark, before they passed the window. This apartment had once been the armoury, and still bore traces of the use to which it had been put, before the mighty tomes, standing shoulder to shoulder, as though resolved not to be taken down alone and read, garrisoned the room. Above the shelves glanced many a fair device, deserving to be better seen, of mace and spear, of axe and harquebuse; and upon the oaken panels between the shelves shone whole sheaves of ancient weapons, the gleanings of many a harvest-field of war.

Upon the morning of the interview between Mildred Leigh and her aunt, this apartment was occupied, as it usually was at that period of the day, by Rupert and Raymond Clyffe. They were sitting within the same oriel-window, and close to the casement, in order to get as much light as possible for the occupations in which they were engaged. The elder was pouring over an old ill-printed volume of romances, the younger was engaged in making a fish-hook attractive for trout.

'I wish you wouldn't whistle so, Ray,' observed the former testily; 'how is one to read?'

'I didn't know you were reading, Rue; you seemed to me to be only thinking.'

'Only thinking,' sighed Rupert; 'but that is much harder work than reading.'

'Is it?' replied the other carelessly. 'I never do either, and therefore am no judge. What are the important matters which demand your attention so urgently this morning, that my whistling *Charlie is my Darling* would interrupt them? I was doing it solely out of compliment to your Jacobite tendencies.'

The other did not reply, but sat with downcast eyes fixed on the floor, on which the rich heraldic blazons were thrown, tracing idly with his foot the

fantastic course of bend and ribbon, lozenge and fret. After a little, he broke silence with: 'I wish I was you, Raymond.'

'That is an odd wish,' returned the other laughing. 'Do you who know so much, then, desire to be ignorant? Or being the heir of Clyffe, would you exchange it for a younger brother's portion?'

'There are worse things than being poor,' returned the young man gravely; 'but it was not of mere station I was thinking. I envy you your happy disposition, your never-flagging spirits, and those pleasures which the simplest sports never fail to afford. I envy you your very strength of limb, Raymond, and the manly beauty of your face.'

'Really, Rue, you make me blush,' replied the other laughing. 'I am not accustomed to such pretty speeches from the ladies, I assure you. Mrs Clyffeard was so good as to tell me in confidence, only yesterday, that I was a black devil. I wonder whether there is such a thing as a white she-fiend.'

'Hush, Ray, hush; the walls of Clyffe have ears.'

'Their talent for hearing, Rue, is, however, a very modern accomplishment; just two years old, as I reckon, this day. You may shake your head, brother, but until our good father brought that woman hither, what things we spoke reached only the ears for which they were intended.'

'She is our father's wife, Ray, and—and!'—Rupert stopped and stammered.

'And we should respect her for his sake,' you were about to add,' observed Raymond coolly. 'Upon the contrary, I protest it is mainly upon his account that I hold her so vile. He is a changed man since he married her; he loves not us his boys as he used to do; and as for poor me, it is well if he does not end by hating me. Do you remember telling me that ancient story of the Greek creature, half-woman, half-serpent, fair without, but foul within, with whom men fell enamoured, and so perished? There must be some glamour about this woman, or our father could never be so enmeshed.'

'I have read, Raymond, that men when old are more liable to the enchantments of love than even in youth.'

'I can scarcely believe that, Rupert,' exclaimed the younger gravely, after a little pause.

'And scarcely can I, brother, yet a wise man has written it, who had himself been young. It is certain that Mrs Clyffeard is gentle and comely; and there lies magic enough in that without sorcery.'

'Comely!' echoed Raymond with abhorrence.

'I could as easily admire the comeliness of a viper. Gentle! ay, the stealthy gentleness of a tigress, as she creeps upon her unconscious victim. You smile incredulously, Rue; you have only seen her velvet foot; but I have seen its claws.'

'She has, I do think, been cruel to you, Raymond.'

'Nay, brother, say rather she has been herself to me; to my father, and to you she has never revealed her true character. How strange it is, Rue, with all your brains and book-learning, that you cannot read a wicked woman! You see how our father's melancholy deepens daily—how his mind withdraws itself more and more from all wholesome matters, to brood over the sad fortunes of our house; and yet you cannot see who casts the shadow, and ever thrusts herself between him and the fostering sun.'

'It needs no woman to make a Clyffeard sad,'

returned Rupert gloomily; 'to blacken the annals of our race would indeed be a superfluous task. There is scarcely a chamber in this house which is not eloquent of our crimes or shame; and if we go out of doors, there is no tongue but ways to the same tune.'

'They wag not so to me, brother; never, at least, since I pitched Gawain Harrison into Nettle Hole for prating to me about Guy Clyffard. It is understood now, when I go a-fishing, that I want a man to carry my basket, not to tell foolish stories against my ancestors. Why, half a century hence, that righteous chastisement of Gawain at my hands will have swollen into an attempt to murder a vassal. Does Heaven set its face against us, think you, more than against other folk, or is it not rather that we have rejected its alliance? You might just as well complain that we do not sit here in the pure sunlight, when we have shut it out ourselves with you painted pride. I swear that I would rather be that peasant-boy, keeping sheep upon Ribble Fell side, than be cursed with ancestors whose memory so dispirited me. If Guy Clyffard did leap into Boden Pot, what then? Are you and I, and all his descendants, obliged to jump after him? Come, sweep these cobwebs from your mind, Rue, or one day they will do you a mischief.'

'What mean you by that, sir?' cried Rupert, starting to his feet, his blue eyes gleaming with rage. 'How dare you say such things? You call others cruel, but none have ventured to wound me thus far.'

'My dear Rue,' returned the other with astonishment, and a pity that he strove in vain to conceal, 'what have I said to anger you? I declare, upon my honour, that I meant nothing more than such morbid thoughts were bad for anybody. Have we not even now the saddest proof of it in our poor'—

'Be silent; do not mention him,' interrupted Rupert menacingly. 'I tell you, I will not hear his name.'

'What! not my father's?' returned Raymond. 'I was merely about to repeat that his melancholy arises mainly from encouraging such fancies.'

'Perhaps,' answered Rupert, with an effort after self-control—'perhaps it does. I misunderstood you, Raymond; I did not mean'—

'I am sure you meant me no harm,' replied the other, laying his hand kindly on Rupert's shoulder. 'Come now with me a-fishing in Ribble Beck.'

'I will join you there, Ray, presently; but I have something else to do first, I have indeed. I would rather be alone for a little.' Rupert said this walking hastily towards the door, as though afraid lest his brother's importunity should overcome his own resolution.

Raymond's eyes followed him with genuine sympathy until the door had closed behind him. 'Poor Rue, poor Rue!' he murmured. 'God grant that thou mayst not bring the Curse down on thine own head. It is no wonder that such prophecies work out their own fulfilment, when they have minds like thine to deal with. I wish with thee that thou and I could but change places. Rubbish of that sort might be shot here, I fancy; striking his broad chest a sounding blow, 'without much damage. I am none of your dreamy ones, thank God! It is eleven o'clock. There are one, two, three good hours of fishing before me; and then, ah! then, for my sweet Mildred!'

The dark face lightened as he spoke, and the eyes, somewhat too stern for boyhood, softened like the black waters of a mountain-tarn touched by the moon, as he strode gaily from the sunken chamber, and through the vaulted passages to the hall, whistling his merry tune. So blithe he shone amid the general gloom, it seemed as though the haunting shadows of the place fled at his sprightly step, and gathered together after him more darkly than before, like clouds behind the sun.

CHAPTER VI.—THE MASTER OF CLYFFE.

Ralph Clyffard was no bookworm like his elder son, and yet no sportsman like his younger. Now, for a man of fortune to live in the country and be happy, it is almost essential that he should be one of these two things. Even now a days, when he has the fortnightly, or even weekly dispensation of justice at the next town to attend, and the Board of Guardians offers its uneasy Chair at the like intervals, time hangs heavy with that country gentleman whose library mainly consists of works of the era of the *Turkish Spy*, and who cannot take sweet counsel with his keeper concerning 'the birds.' Still the *Times* comes every morning, save on that unhappy Monday, and there are mitigations in short swallow-flights to town by help of the steam-horse, whose hot white breath can be seen, let us hope, from our Castle of Indolence, rising serpentine along the distant valley, like incense from the Altar of Travel. But it is only lately that such has been the case. If a grandfather of ours, being a country Squire, did not hunt, it awoke commiseration or contempt, according as he was popular or the reverse among his neighbours. If he took to reading, it was a portent, a course of proceeding so altogether abnormal and uncanny, that it was not much spoken about; but if he was neither sportsman nor scholar, people set him down as Mad. Ralph Clyffard was not mad, but he was possessed with a devil—the fiend of family pride: not a reasonable sort of disease with any folks, but in his case unaccountable in the highest degree; for there never had been a Clyffard, from Bryan the Founder—a freebooter—to Cyril, the shell of whose rayless mind had not been yet put underground, of whom their descendants had any cause to be proud; on the contrary, that generation was an exceptional one the record of which was unstained by gross vices. What a gracious power is that of Time, which can make Dulness shine from afar with starlike mellowness, ay, and hallow crime itself! How strange it is that the tyrant of a few ages ago should look to us the hero, and the wild rake win our readiest charity, if not extort our admiration, while the Bully and the Sot of to-day are held at their just value. If the Future is seen darkly, or rather dimly, it is not at least distorted like this Past; there is no weird charm about it, that can make evil seem good, and baseness beauty. I have known even godly men to be greatly befooled in this matter, taking their Jack o' Lantern, arising from the phosphorescent bodies of their dead ancestors, for quite a celestial lustre; the few centuries over which their forefathers have straddled more or less ignobly, dividing their thoughts with that eternity which they hope to pass with the saints of the earth.*

* Their inward thought is that their houses shall continue for ever, and their dwelling-places to all generations; they call their lands after their own names.

This is surely something worse than unreasonable. A good and wise father is an inestimable blessing; and if *his* father has been good and wise before him, and *his* father before *him*, it is a subject of satisfaction indeed to a great-grandson, and the more so, inasmuch as such continuity of excellence is rather rare; but the mere fact of being able to trace the existence of one's forefathers—unless by their good deeds—even to infinite series, is surely no genuine ground for self-congratulation; the sole credit is due to the Herald's College, or to the man whom you have ventured to censure, perhaps, for having somewhat prolonged his task in the muniment-room (at a guinea a day, and free quarters in your ancestral mansion) of making out the family-tree. That red-nosed scribe himself is indubitably descended from the same ancestor—one Adam—as you are; and the sole difference between you two in this respect is, that *you* have the money and the inclination to spend it upon making clear those last few steps which intervene between yourself and William the Norman at furthest. The rest of the ladder is hidden, like Jacob's, in impenetrable cloud. Nor am I to be told that this is all vulgar talk; that a certain divinity doth hedge about this wonder of Long Descent made plain, more than can be explained away by mortal scribbler; for if, at any round of the said ladder, some ancestor of any man of lineage has chanced to leave his purse behind him, we call his descendant Yeoman, or worse, look you, and attach no sort of divinity to him at all. Thus there are farms in Devon, as doubtless all over this historic land of ours, which have been held by the same race in an unbroken line for twenty generations; whose blood is as pure as the Howards'. These are much 'respected' as long as they pay their rent; but it is reserved for their landlord—the lord of the manor, who dates perhaps at earliest from some rogue whom Bluff Harry loved (for his wife's sake), and gave him lands filched from their common mother, the Church—to boast himself in scutcheons and chevrons, in 'jackasses fighting for gilt gingerbread,' as a gentleman of ancient lineage. One must own some timber beside one's family-tree to get *that* held in this sort of Druidical reverence.

The Clyffards had plenty of timber, and all things fitting beside; that jewel of fancy price, their ancestry, was splendidly set, and had a gorgeous casket. It had never, in the most perilous times, been stripped of its surroundings, or even forced for a season to conceal its far-darting lustre. The sort of chivalry that had animated Norman Bryan had been transmitted through all his line; 'the good old rule, the simple plan, that they should take who have the power, and they should keep who can,' had been preserved in its integrity. The Clyffards had had no need to marry heiresses; their shields bore no escutcheons of pretence; their prosperity had grown like a river, but, unlike it, had needed no foreign feeders to sustain it. There had been dry seasons, when it had fallen a little, and there had been times of civil commotion, when it had even been dammed up; but the obstacle removed, the broad stream of prosperity had only poured forth in the greater volume. They had cared nothing for Roses, Red or White; but each had smelled the sweeter in the nostrils of wise Sir Mark, as it had prevailed over the other. They had loved King Charles and monarchy, but not with such a perfect love that it had cast out the fear of Cromwell and his Ironsides. Sir John, indeed, had made a wrong cast in that matter, and

defended Clyffe against Lambert. The blood of Cavalier and of Roundhead had not refused to mix in the castle-moat, for four long weeks of siege. The west wing had sorely suffered. You might see even now the scars upon the stubborn stone. Many a shock of battle had that front withstood, and often listened to the roar of culverin and ring of steel, which now regarded the trim garden only, and the sleeping waters, and listened to the mowing of the scythe and the leap of fish. It had done with war for ever; and swallow-haunted, ivy-clad, it looked like one who, having had his days of trouble, henceforth spends a life of leisure among friends. Even the trouble had been short-lived. Without storming and without surrender, the banner of the Parliament had been quietly substituted for that of the king upon the round tower of Clyffe Hall, and General Lambert had dined with Sir John at the same table, in the banqueting-room, under which the royal legs of the Stuart had condescended to place themselves only a few months before.

It was of such ancestors as these that Ralph Clyffard was proud; and of far worse than these. He was by no means a bad man himself; there was not one of his long line, perhaps, who, being compared with him, would not, upon the whole, have suffered by the contrast. There was really a sort of sublimity in his ignorance of the true state of the case—in his personal humility and in his outrageous family pride. 'I am nothing in myself,' he might have exclaimed, 'but everything in virtue of my descent from an unbroken line of almost unmitigated scoundrels.' He hoped, when his time came, as it must come to all (and Death wore its chief awe in his eyes, inasmuch as it had not spared those great ones whose proud faces frowned even upon *him*, from their canvas in the Oak Gallery)—he hoped, I say, to meet his end at last like a Clyffard and a Christian, without being at all aware that that devout desire involved a contradiction in terms. And yet he was not without an impression that his forefather, Guy, had not behaved altogether as became a person of his condition. Many took it for granted, and with reason, that Ralph Clyffard suffered no steel to shear his locks, and drank nothing stronger than water from the spring, in hopes to save that wicked ancestor at least some years of purging fires; for the old faith which had served the Clyffards for so long was his, robbed of none of its pretensions save in one vital particular. Never since excommunicated Guy's time had priests been harboured in Clyffe Hall. They had had the run of the place at one period, which had indeed, at certain troublous epochs, been, as it were, burrowed out for their convenience; there was a priest's chamber between the ceiling and the roof of at least one sleeping-room of state. The Clyffards had been not unwilling to run certain risks for the Church's sake, provided that the penalty was not extreme; they made such a bid for heaven as they considered reasonable, but not to the peril of house and lands. They affected religion much as a sort of Anti-purgatory Insurance Society; but they were not prepared to pay any exorbitant premium. Some of them even thought it possible that there might not be a purgatory after all. The relation between the House of Clyffard and the Church of Rome being of this ticklish description, it surely behoved the latter power to be as winsome and indulgent in all cases

of peccadillo as might be consistent with the security of the latter's souls; yet in the above-mentioned case of Guy's favourite bloodhound, which had suffered capital punishment by the king's order ('martyred,' said its master) for child-eating, great complications arose. The priest most unexpectedly took the mawkish view of the matter. 'Another word, and I bury my dog in the chapel!' quoth irascible Guy.

'At your peril!' exclaimed he of the shaven crown, with a worse shudder than he had experienced upon the occasion of the original offence. 'Beware the thunders of the Church.'

'Anathema Maranatha to your heart's content—big words break no bones,' replied the stout Squire contemptuously; and he buried the dog where he had threatened, with all the funeral honours that laymen could pay. The priest left Clyffe, shaking the dust from his shoes; and at the very earliest date at which the fulminating material could be manufactured, Guy Clyffard was excommunicated.

They cursed him in eating, they cursed him in drinking;

They cursed him in coughing, in sneezing, in winking.
Never was heard such a terrible curse.

But what gave rise

To no little surprise,

Nobody seemed one penny the worse.

Not a jackdaw in the western tower moulted a feather.

When the immediate irritation had subsided, both parties repented having resorted to such extreme measures. Guy Clyffard did penance—having permission to boil his peace very soft indeed—and the Church of Rome took him once more under her protection. But there was henceforth this difference, that her ministers never came to Clyffe Hall unless they were sent for, and sometimes, it was whispered, not even then. Poor Guy perished without any to shrieve him; no priest was among those witnesses whom his widow had summoned upon her side to prove that he had died, if not in the odour of sanctity, at least in his bed, and not in Boden Pot. In expectation, doubtless, that he would be paid some scurvy trick of the kind, the deceased had left behind him the most stringent directions to the Clyffards who should come after him, that in case he should fail to receive his last sacramental rites, that no lodgement should henceforward be given in Clyffe Hall to tricky priests. The document which conveyed this posthumous mandate was a wonder in its way, being full of those identical 'big words'—mere threatenings and thunders—which he had himself set at naught in the mouth of one much more privileged—if custom is privilege—to utter them; yet, strange to say, they were obeyed. One or two of his descendants may have been swayed by the convenience of the mandate. It was more agreeable for many reasons that the keeper of the Clyffard conscience, instead of being on the spot to watch its workings too minutely, should step over from the hamlet hard by, and perform the duties of his office when required; but Ralph Clyffard obeyed the injunction for its own sake. The ill-written, ill-spelled parchment, dictated by malice, and enjoining but a mean sort of revenge, was in his eyes a sacred writing. He kept it in a vast iron-bound chest, furnished with double locks, and containing a number of other family documents, from the original deed of gift—confer-

ring the manor of Clyffe *in capite* of our lord the king, by the sergeanty of finding him a sheaf of arrows and six loaves of oat-bread whenever he should hunt in Ribble Forest—down to poor Cyril's mad will, not worth the parchment it was written on.

Looking upon Ralph Clyffard's haggard but not ill-favoured face, and the plaited hair that fringed it, one could not but wonder what he could have been in his youth. Could he ever have been a trustful child, saying his prayers at a mother's knee? A light-hearted boy, enjoying the sports of the hour with all a boy's capacity for enjoyment? A young man courting the smiles of beauty, his pulses throbbing with the fulness of the Spring, had he ever experienced those palmy days which, long or short, fall to the lot of almost all mortals? Most of us have met such men, and tried to picture them in the cradle, in the playground, or at the altar with their brides—and failed. Their past is not to be imagined; and even those who witnessed it, can tell us little. Of Ralph Clyffard, men knew only that he had been a dutiful son under circumstances when it was not easy to be dutiful; that a kind heart lay somewhere within him, notwithstanding his haughty and austere behaviour; and that in his first marriage he had pleased his father, and in his second pleased himself. He had been brought up at Clyffe from his infancy, but not, of course, as its heir. He had never desired to be so; and had driven the very thought of it away from him as far as possible. Not only did his childless uncle Roderick look like to live for a score of years to come, but his own father Arthur, the younger brother, was alive, a stout man too; and what was still more to the purpose, there was Cyril, a hale boy, but a twelvemonth older than himself. Yet even then Ralph was fully persuaded that he would be master of Clyffe, for that the Curse of the Clyffards must needs fall.

THE METABOLICAL MACHINE.

MR ALFRED LONG has brought under public notice an educational apparatus called the *Metabolical Machine*, which, in its primary application, is intended to facilitate the learning of languages. It is an old controversy, older than any of our systems of popular education, whether there is any royal road to language-learning, any mode of avoiding tedious grammatical drilling. The advocates of the grammar-school and university system assert that there are two reasons why no 'royal road' should be sought for. One is, that grammar is the very scaffolding by which language is built up—words being the bricks; and that we can never construct the edifice without this scaffolding, or it will fall piecemeal around us. The other reason is, that the very labour involved in many years' preparatory study, disciplines the mind in a way that will be valuable to us for the rest of our lives, irrespective of the value of the language learned. The opposite party point to the fact, that when university men and classical-academy men get out into the world, not one in twenty of them retains an amount of Latin and Greek justifying the labour bestowed in learning those languages; and that the same fact applies to most of the young ladies who learn French and Italian at costly boarding-schools.

May not the truth lie between these two extremes, as it often does between extremes on other subjects?

Mr Long's apparatus is intended to aid in practically applying certain principles set forth in Mr Prendergast's volume, published a few months ago.* Mr Prendergast contends that, if we want to learn a language, we should watch the mode in which a child learns a foreign tongue. A child learns to do a great deal with a very small number of words; and this is true in whatever language he is taught. It is considered that when a child thoroughly knows about two hundred words, in sentences, he then practically knows (without being conscious of it) most of the syntactical constructions and all the articulated sounds of that language—provided the words are well selected and grouped for this purpose. It is better to have a few words thoroughly imbedded in the mind, than a great number in a fast-and-loose condition; and if those few are chosen discreetly, we may ring the changes upon them in an amazing number of ways. Mr Prendergast constructs a sentence in English words, and puts the exact equivalent in Latin, French, or whatever the other language may be. The learner looks at the words, and hears the sounds over and over again, until both become his mental property. He knows a sentence at any rate. A long sentence, after a time of practice, is more serviceable than a short one, because two or more subordinate sentences are likely to be contained in it, and are deducible from it. This point, then, becomes observable, so far as children are concerned, that new sentences are understood by removing *some* of the words only in that which has been already learned, and putting in other words similar in syntactical and grammatical form, but different in meaning—such as *father* for *mother*, *table* for *chair*, and the like. Mr Prendergast advises that this plan precisely shall be adopted in teaching languages to adults: the plan of substitutions, permutations, or whatever we choose to call them. We shall perhaps best shew Mr Prendergast's meaning (and also Mr Long's, of which presently), by an example of our own construction:

My book is on your table.
Your bag was near my desk.
His knife is under her chair.

A child, we suppose, learns these three sentences well, by sight and by sound. Then, if 'book' is taken out of the first sentence, and 'bag' substituted, the child learns really a new sentence, without having to learn any new word; so if 'chair' is substituted for 'table,' 'his' for 'my,' 'under' for 'on,' and so forth, new combinations of ideas are formed by each change, without the necessity of learning any new word. 'So the same with adults, or with any one learning a foreign language,' says Mr Prendergast; 'give him a small number of well-selected sentences, and let him clearly see how many thousand new sentences may be formed by merely interchanging single words.' We all know something about that celebrated school-boy problem of the number of ways in which a certain number of guests may arrange themselves at dinner; a limited application of the same principle is at work here. Unless we forget our early arithmetic, there could be about seven hundred sentences formed from the above three,

by simple substitutions of words by others immediately over or under them. If the three sentences were turned into idiomatic French or Latin, the same kind of substitution would completely familiarise the learner with the sounds of sentences and phrases in those tongues, irrespective of learning any additional words.

One essential feature in the method is, that words are not to be learned *singly*; they are to be learned in combination, idiomatically correct according to the language to be studied. The words composing 'My sister has read a new book this week,' whatever they may be (say) in French, are not to be learned merely as words; the whole sentence, in good French, is driven into the memory by many repetitions; and the same idiom will present itself to the learner under a great variety of interchanges of individual words. Whatever else it may be, the system is not 'French without a Master,' for Mr Prendergast insists that the sounds of the sentence must come from the voice of a native, or of one who has thoroughly mastered the French accent and niceties of articulation; and so of German, Italian, or any other language. What the learner has to do is to learn a little well, and in a way that will please him more than dry musty grammar; but then he must have a living person to teach him that little. A few sentences form types or models on which an immense number of others may be formed, and we are advised not to trouble ourselves with any burdensome load of words, learning new ones only so fast as we can arrange them according to the idiomatic models. Mr Prendergast attaches much importance to the fact, that uncultivated persons carry on their general conversation with very little more than two or three hundred familiar words; he draws inferences from that fact as to the possibility of doing great things with a small number of words in a foreign tongue. Of course, the language-power of the individual becomes comparatively rich when the three or four hundred become three or four thousand; but this does not prevent the limited power from being exact so far as it goes. Why is it, asks Mr Prendergast, that uneducated servants, who accompany their masters on a foreign tour, sometimes come back with a more facile power of talking French than their masters themselves? Because they learn sentences by rote, reproducing with perseverance the words pronounced by a native, and using these sentences every day.

We cannot go into the development of the idea on which Mr Prendergast's method is based, but the method itself may be characterised in homely phrase thus: 'Stick to a small number of words, in beginning to learn a language, and ring the changes on them, without troubling yourself about anything else.' Mr Long's metaphorical machine may be called an apparatus for ringing the changes; it is like a box in which a number of dice are shaken, to see which side of each comes uppermost. There are cubes, measuring (say) an inch and a half in every direction, hollow, and formed of light wood. Four out of the six faces are coated with a white composition which will receive pencil-writing, that may be easily rubbed out. We call them cubes, but they are not quite cubical, two of the six faces being smaller than the other four, and not prepared to receive any writing. An oblong horizontal box is prepared, with a number of cells in the inside; a door at the back, through

* *The Mastery of Languages; or the Art of Speaking Foreign Tongues Idiomatically.* By Thomas Prendergast, formerly of Her Majesty's Civil Service at Madras. Bentley. 1864.

which the cubes can be introduced, and a window in the front, through which they can be seen. Each cell is larger than the cube which is put into it, inasmuch that, when the box is made to rotate on a horizontal axis, the cube will turn over and over, most likely presenting a new face to the window. One cube may make half a summersault, another three-fourths, another a whole overturn, for there is a contrivance to produce irregularities in these movements. There may be one, two, or three rows of cells; there may be only three or four, or as many as eight or ten, cells in each row; but the principle is just the same. There is not a winch with which to turn the box, in grinding-organ fashion, but there is a handle or knob at each end which gives the requisite facility.

We write four words on the four faces of each cube, all different, but capable of occupying a place in the same part of a sentence. The four may be *garden, field, park, street*; and on another cube, *through, in, into, from*; on another, *friend, brother, son, John*; on another, *his, her, your, my*; and so on, according to the number of cubes required for the sentence selected. Put the cubes into the cells in their proper order, and you will see through the glass window or covering a short sentence in good English. Turn your handle, or rattle your dice, and there will come to the front a new sentence, in equally good English; for let the cubes tumble over as much or as little as they may, any one of the four words written on each will be equally appropriate in that particular part of the sentence. It is an easy mode of doing mechanically that which Mr Prendergast explains theoretically—ringing the changes of corresponding words in four sentences. There is given a 'Labyrinth' or tabular representation of some of the varieties produced by having only two of the faces of each cube written on: the cubes being ten in number. These are the couplets—*His, Her; servants, cousins; saw, found; your, my; friend's, sister's; new, little; bag, book; near, in; our, their; house, carriage*. They might form two entirely different sentences, thus:

His servants saw your friend's new bag near our house.
Her cousins found my sister's little book in their carriage.

But by substituting any word for the word immediately over or under it, a partially new sentence is formed, equally grammatical and syntactical. A quarto-printed page, closely packed with figures representing the words, does not contain so much as one-fiftieth part of these partially-different sentences—so wonderfully prolific is this change-ringing.

But what is the use of all this? Mr Prendergast and Mr Long tell us, in reply, that a pupil's attention is, by this machine, limited to one sentence at a time, without distraction from others; that it exhibits the same lesson in such a variety of forms, that the pupil does not become weary of his work; that the peculiar kind of chance or uncertainty as to what sentence will come up next, gives the pupil an eager pleasure in looking out for it; that by writing the foreign words on one row of cubes and the English on another, an opportunity is afforded for double translation; and these lessons being graduated according to the learner's capacity at any particular stage, by lessening or increasing the number of words in the sentence; that it affords an unerring test whereby the teacher can judge whether the pupil has really mastered what has been given to him to learn—for thorough

knowledge of a little, rather than imperfect knowledge of much, is the guiding principle of the system. Say that a boy is learning French. An English sentence is written, and the French equivalent spoken by the teacher with proper accent, until by degrees the very sight of one of the English words brings to memory the French. Say that four such sentences are constructed, and committed to memory, until the boy has the sounds of four sentences, as well as the look of the four corresponding English ones, firmly fixed in his memory. Then it is that the metaphorical process, the change-ringing, sets to work. The four English sentences are written on a set of cubes, each cube containing words in the corresponding part of the same sentence. Work the oracle—grind the organ, and see what turns up. The boy finds a sentence which in all probability he has never seen before; but he has seen and thoroughly learned all the elements of which it is composed, and he can easily speak in French the equivalent to that sentence. Grind away again, and another sentence comes up, which can be read off in French in the same way. We have seen a boy, nine years of age, put English sentences into Latin with a correctness and celerity which staggered older folks; but then he had thoroughly learned all the Latin equivalents of the words employed, and had read and heard them in a similar, though not the same construction.

We cannot go into the rules for writing, reading, hearing, and speaking foreign tongues, four exercises which do in fact require different modifications of mental discipline; but our two inventors insist upon it that the same general principle should pervade all—stick to a little at a time, do it thoroughly, and ring the changes upon it.

Nay, not merely two inventors, but three, seeing that Dr Bennett Gilbert has applied the machine in aiding to teach music. If two short tunes, say polkas or waltzes, were written out, the general construction might be such that the second bar of the first might change places with that of the second; or the sixth bars or the eighth bars be substituted for one another. Of course they would not constitute such good melodies in the altered as in the original forms; but still a composer could so construct them as to pass muster. Five or six years ago,* we described in this *Journal* Mr Van Noorden's *Polyharmonicon*, an instrument for permutating the bars of one tune among those of another. Two bars of printed music are pasted upon a small flat piece of wood, which we may call a domino; and as many of these dominoes are then filled as will complete a tune—say eight dominoes or sixteen bars. Seven other tunes are composed in the same way, similar in general style or construction. There being then eight tunes, the second domino of any one may be exchanged for the second of any of the other seven; and so on. The permutations are thus almost inexhaustible. The dominoes are made to slide in grooves on a board, and this board is placed upright before the player like a music-stand. All the dominoes require, however, to be adjusted by hand, each piece separately. Now, in Dr Gilbert's arrangement, the changes are produced by rotating the machine or box. Each cube contains one bar of music on each face; there must be as many cubes as there are bars, and the 'ringing

of the changes' occurs among the bars of four tunes. Dr Gilbert has composed a series of four 'Evolution Marches,' in common time, and the key of G, each in twenty-four bars; but as two-thirds of the tune are repeated (*da capo*), the tune is practically forty bars long. When the four-times-twenty-four bars are pasted upon the four sides of twenty-four cubes, and placed in the box, the rotation produces a marvellous number of changes—Dr Gilbert says 200,000,000,000,000; and we shall not take the liberty of disproving his statement.

Dr Gilbert, moreover, has shewn in a very interesting way from what simple materials a melody is formed. If we take twenty-four equal notes, say minims, and distribute them, one after another, on the musical stave, some on the lines, and some on the spaces, they might be played on a pianoforte or other musical instrument; but they would scarcely form a tune, as there would be no time, no character, no accent. If, however, some of the notes were made shorter than minims, and the whole were divided off into equal bars of $\frac{3}{4}$ time, common time, or some other measure, a melody would at once appear—not very beautiful, perhaps, but still a melody; and the melody would become singularly different if one time were changed for another. Change the measure of *God save the Queen* from $\frac{3}{4}$ time to common time, and you would hardly recognise your old acquaintance; and the same if the *Hundredth Psalm* were changed from common time to $\frac{3}{4}$ time. Dr Gilbert, as an organist, shews with how great facility chants may be produced by applying these simple elements of melody to Mr Long's machine. Four rows of minims are pasted on the four faces of a row of cubes; rattle them over how you may, they present a series which, treated according to the rules of harmony and counterpoint known to scientific musicians, constitutes a good chant. If each series is chosen in the first instance with a good ear to melody, all the better for the result; but it is surprising how simple are the elements concerned. A threepenny sheet, published for Dr Gilbert by Messrs Ashdown and Parry, shews in a singular way how a chant, a hymn, a nocturne, a march, a waltz, and a song may grow out of the very same melody, by simply altering the lengths of the notes and the measure of the bars or time.

This metabolical machine may possibly aid in teaching arithmetic also—not as a really calculating machine, like the marvellous production of Mr Babbage and M. Scheutz, but as an easy mode of changing the arrangement of number cubes, for setting questions or problems.

There is no actually new principle brought into play; but Mr Prendergast, Mr Long, and Dr Gilbert, in their several ways, have certainly succeeded in shewing that, by selecting a small number of elements, and ringing the changes among them, we may readily acquire a large amount of knowledge in certain departments of study.

THE SKELETON.

This hollow brain parts like a pod,
The seed shook out; yet here a god
Dwelt for a while, and through these eyes
Looked at the world with strange surmise.

Whether a murderer or king,
A parasite or baser thing,
Thou'dst hope in youth, despair when old,
Great joy, and misery untold;

And look'dst as if all seen was old,
And life only a tale re-told,
With eyes of deep inquiry fixed;
Eyes—'tis clay, with fiery essence mixed.

This head once like a blossom rose,
The flower the gardener's skill that shews,
The crown of this our human frame,
Full of all beauty tongue can name.

Where's now the heart, the fount of blood,
The spring of life's pulsating flood—
The heart that, till death's fevers parch,
Beats still its solemn funeral-march?

And where the crystal globes, though small,
Type of the planets, one and all,
Those windows of the human face,
The soul's peculiar dwelling-place?

Was this the head that thoughts conceived,
The hand to execute the deed?
The sinful mouth is passed away,
The workman hand is sodden clay.

The brow, so furrowed with long pain,
Is passed into the earth again,
Swift as the last star fades in fear,
Hearing exulting chanticleer.

No longer runs the branching vein
Where life and heat had once their reign,
Till death's cold torpor froze the flood,
And spread its opiate through the blood.

Could flesh and colour e'er en throne
These dry brown pipes of porous bone—
This skull, the hovel of the mind,
To will, to loosen, and to bind?

'Ungainly scaffold for mere use'—
So runs a flippant fool's abuse;
Behold the first sketch of the man,
The outline of God's mighty plan!

First take a root, and then exclaim:
'What! this the rose that poets name
"The king of flowers;" let beauty sheath
The basement bones, nor look beneath.

'Wait till the crimson life-blood warms,
Clothe first with flesh the ruder forms;
Give me the bloom that pulsing glows,
And paints the cheeks with living rose.

'And let the blue of summer nights
Fill the full eye with shifting lights;
Nor praise this outline of a man,
This bony scaffold's ghastly plan.'

These bones, thou fool, have owned a God,
And felt the death-stroke of his rod;
Love, hate, and joy together filled
These veins, that once both thought and willed.

An angel from this house of clay,
Released by death, has fled away;
The fire's gone out, the door's ajar—
This ærolite was once a star.

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